

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 Claim 1 (currently amended): A closure for shielding, and selectively
2 providing access to, the targeting assembly of a particle accelerator, the particle
3 accelerator including a housing defining an opening for accessing the targeting
4 assembly, the particle accelerator being surrounded by an outer shielded enclosure
5 providing selective access to the particle accelerator, said closure being adapted to
6 be mounted on said housing and comprising at least a first door for selectively
7 covering the opening in the housing of the particle accelerator, and said closure
8 including a door mounting assembly for mounting said first door on the housing of
9 the particle accelerator, whereby said first door of said closure selectively covers
10 the opening in the housing of the particle accelerator when access to the particle
11 accelerator through the outer shielded enclosure is provided.

1 Claim 2 (original): The closure of Claim 1 wherein said first door includes
2 copper radiation shielding.

1 Claim 3 (original): The closure of Claim 1 wherein said door mounting
2 assembly includes at least a first hinge assembly to facilitate pivotally mounting
3 said first door on the housing of the particle accelerator.

1 Claim 4 (currently amended): The closure of Claim 1 wherein said door
2 mounting assembly includes a frame for being mounted on the housing of the
3 particle accelerator and received about the opening in the housing of the particle
4 accelerator and for supporting said door.

1 Claim 5 (original): The closure of Claim 4 wherein said door mounting
2 assembly includes at least a first hinge assembly for pivotally mounting said door
3 to said frame.

1 Claim 6 (original): The closure of Claim 4 wherein said frame and said door
2 include copper shielding material.

1 Claim 7 (original): The closure of Claim 4 wherein said frame and said door
2 are fabricated substantially of copper.

1 Claim 8 (original): The closure of Claim 1 wherein said door mounting
2 assembly includes a frame for being received about the opening in the housing of
3 the particle accelerator, said frame including a sill member, a header member, and
4 first and second jamb members, said door mounting assembly also including at
5 least a first hinge assembly for pivotally mounting said door on said frame,
6 whereby said first door is movable from a closed position to an open position.

1 Claim 9 (original): The closure of Claim 8 wherein said closure further
2 comprises a second door, and said door mounting assembly includes a second
3 hinge assembly for pivotally mounting said second door on said frame, whereby
4 said second door is movable from a closed position to an open position.

1 Claim 10 (original): The closure of Claim 9 wherein each said first and
2 second door is substantially rectangular and defines outboard and inboard edges,
3 and upper and lower edges, and wherein said each said first and second jamb
4 member defines a front surface, said outboard edge of said first door being pivotally
5 secured to said first sill member with said first hinge assembly such that said first
6 door covers said front surface of said first jamb member when said first door is in
7 said closed position, and said outboard edge of said second door being pivotally
8 secured to said second sill member with said second hinge assembly such that said
9 second door covers said front surface of said second jamb member when said
10 second door is in said closed position.

1 Claim 11 (original): The closure of Claim 10 wherein said sill member of
2 said frame defines a first rabbet along an upper forward edge of said sill member
3 for receiving said lower edges of said first and second doors when said first and
4 second doors are in said closed position, and wherein said header member of said
5 frame defines a second rabbet along a lower forward edge of said header member

6 for receiving said upper edges of said first and second doors when said first and
7 second doors are in said closed position.

1 Claim 12 (original): The closure of Claim 11 wherein said first door defines a
2 third rabbet along the inside of said inboard edge of said first door, and wherein
3 said second door defines a fourth rabbet along the outside of said inboard edge of
4 said second door, whereby said inboard edges of said first and second doors
5 overlap when said first and second doors are in said closed position.

1 Claim 13 (original): The closure of Claim 12 wherein said first and second
2 doors and said frame are fabricated substantially of copper.

1 Claim 14 (original): A closure for shielding, and selectively providing access
2 to, the targeting assembly of a particle accelerator, the particle accelerator
3 including a housing defining an opening for accessing the targeting assembly, the
4 particle accelerator being surrounded by an outer shielded enclosure providing
5 selective access to the particle accelerator, said closure comprising:

6 first and second doors for selectively covering the opening in the housing of
7 the particle accelerator, each said first and second door being movable from a
8 closed position whereby the targeting assembly is shielded to an open position,
9 whereby access to the targeting assembly is provided, and

10 a door mounting assembly for mounting said first and second doors on the
11 housing of the particle accelerator, said door mounting assembly including a frame
12 for being secured about the opening in the particle accelerator accessing the
13 targeting assembly, said door mounting assembly also including a first hinge
14 assembly for pivotally securing said first door to said frame and a second hinge
15 assembly for pivotally securing said second door to said frame, whereby said first
16 and second doors of said closure selectively cover, and reduce radiation emissions
17 from, the opening in the housing of the particle accelerator and the targeting
18 assembly therein when access to the particle accelerator through the outer
19 shielded enclosure is provided.

1 Claim 15 (original): The closure of Claim 14 wherein said first and second
2 doors are fabricated substantially of copper.

1 Claim 16 (original): The closure of Claim 15 wherein said frame is fabricated
2 substantially of copper.

1 Claim 17 (original): The closure of claim 14 wherein said frame includes a
2 sill member, a header member, and first and second jamb members.

1 Claim 18 (original): The closure of Claim 17 wherein each said first and
2 second door is substantially rectangular and defines outboard and inboard edges,
3 and upper and lower edges, and wherein said each said first and second jamb
4 member defines a front surface, said outboard edge of said first door being pivotally
5 secured to said first sill member with said first hinge assembly such that said first
6 door covers said front surface of said first jamb member when said first door is in
7 said closed position, and said outboard edge of said second door being pivotally
8 secured to said second sill member with said second hinge assembly such that said
9 second door covers said front surface of said second jamb member when said
10 second door is in said closed position.

1 Claim 19 (original): The closure of Claim 18 wherein said sill member of
2 said frame defines a first rabbet along an upper forward edge of said sill member
3 for receiving said lower edges of said first and second doors when said first and
4 second doors are in said closed position, and wherein said header member of said
5 frame defines a second rabbet along a lower forward edge of said header member
6 for receiving said upper edges of said first and second doors when said first and
7 second doors are in said closed position.

1 Claim 20 (original): The closure of Claim 19 wherein said first door defines a
2 third rabbet along the inside of said inboard edge of said first door, and wherein
3 said second door defines a forth rabbet along the outside of said inboard edge of
4 said second door, whereby said inboard edges of said first and second doors
5 overlap when said first and second doors are in said closed position.

1 Claim 21 (original): The closure of Claim 20 wherein said closure further
2 comprises a locking mechanism for securing said first and second doors in said
3 closed position.

1 Claim 22 (original): The closure of Claim 21 wherein said locking
2 mechanism includes a first and second securing pins, said first securing pin being
3 releasably received through a hole in said header member, and releasably received
4 in a hole provided in said first door, and said second securing pin being releasably
5 received through a further hole in said header member, and releasably received in
6 a hole provided in said second door.

1 Claim 23 (original): A closure for shielding, and selectively providing access
2 to, the targeting assembly of a particle accelerator, the particle accelerator
3 including a housing defining an opening for accessing the targeting assembly, the
4 particle accelerator being surrounded by a shielded enclosure providing selective
5 access to the particle accelerator, said closure comprising:

6 first and second doors for selectively covering the opening in the housing of
7 the particle accelerator, each said first and second door being fabricated
8 substantially of copper and being movable from a closed position whereby the
9 targeting assembly is shielded to an open position whereby access to the targeting
10 assembly is provided, and

11 a door mounting assembly for mounting said first and second doors on the
12 housing of the particle accelerator, said door mounting assembly including a frame
13 for being secured about the opening in the particle accelerator accessing the
14 targeting assembly, said frame being fabricated substantially of copper, said door
15 mounting assembly also including a first hinge assembly for pivotally securing said
16 first door to said frame and a second hinge assembly for pivotally securing said
17 second door to said frame, whereby said first and second doors of said closure
18 selectively cover, and reduce radiation emissions from, the opening in the housing
19 of the particle accelerator and the targeting assembly therein when access to the
20 particle accelerator is provided through the shielded enclosure.

1 Claim 24 (original): The closure of claim 23 wherein said first door defines
2 an interior surface which is contoured to closely receive components of the
3 targeting assembly of the particle accelerator.

1 Claim 25 (original): The closure of Claim 23 wherein each said first and
2 second door is substantially rectangular and defines outboard and inboard edges,
3 and upper and lower edges, and wherein said each said first and second jamb

4 member defines a front surface, said outboard edge of said first door being pivotally
5 secured to said first sill member with said first hinge assembly such that said first
6 door covers said front surface of said first jamb member when said first door is in
7 said closed position, and said outboard edge of said second door being pivotally
8 secured to said second sill member with said second hinge assembly such that said
9 second door covers said front surface of said second jamb member when said
10 second door is in said closed position.

1 Claim 26 (original): The closure of Claim 25 wherein said sill member of
2 said frame defines a first rabbet along an upper forward edge of said sill member
3 for receiving said lower edges of said first and second doors when said first and
4 second doors are in said closed position, and wherein said header member of said
5 frame defines a second rabbet along a lower forward edge of said header member
6 for receiving said upper edges of said first and second doors when said first and
7 second doors are in said closed position.

1 Claim 27 (original): The closure of Claim 26 wherein said first door defines a
2 third rabbet along the inside of said inboard edge of said first door, and wherein
3 said second door defines a forth rabbet along the outside of said inboard edge of
4 said second door, whereby said inboard edges of said first and second doors
5 overlap when said first and second doors are in said closed position.

1 Claim 28 (new): A closure for shielding, and selectively providing access to,
2 the targeting assembly of a particle accelerator, the particle accelerator including a
3 housing defining an opening for accessing the targeting assembly, the particle
4 accelerator being surrounded by an outer shielded enclosure providing selective
5 access to the particle accelerator, said closure being adapted to be mounted on
6 said housing and comprising at least a first door for selectively covering the
7 opening in the housing of the particle accelerator, and said closure including a
8 door mounting assembly for mounting said first door on the housing of the particle
9 accelerator, whereby said first door of said closure selectively covers the opening in
10 the housing of the particle accelerator when access to the particle accelerator
11 through the outer shielded enclosure is provided, said door defining an interior
12 surface having a contour adapted to be closely received over at least one
13 component of the targeting assembly of the particle accelerator.

1 Claim 29 (new): The closure of Claim 28 wherein said first door includes
2 copper radiation shielding.

1 Claim 30 (new): The closure of Claim 28 wherein said door mounting
2 assembly includes at least a first hinge assembly to facilitate pivotally mounting
3 said first door on the housing of the particle accelerator.

1 Claim 31 (cu new): The closure of Claim 28 wherein said door mounting
2 assembly includes a frame for being mounted on the housing of the particle
3 accelerator and received about the opening in the housing of the particle
4 accelerator and for supporting said door.

1 Claim 32 (new): The closure of Claim 31 wherein said door mounting
2 assembly includes at least a first hinge assembly for pivotally mounting said door
3 to said frame.

1 Claim 33 (new): The closure of Claim 31 wherein said frame and said door
2 include copper shielding material.

1 Claim 34 (new): The closure of Claim 31 wherein said frame and said door
2 are fabricated substantially of copper.

1 Claim 35 (new): The closure of Claim 28 wherein said door mounting
2 assembly includes a frame for being received about the opening in the housing of
3 the particle accelerator, said frame including a sill member, a header member, and
4 first and second jamb members, said door mounting assembly also including at
5 least a first hinge assembly for pivotally mounting said door on said frame,
6 whereby said first door is movable from a closed position to an open position.

1 Claim 36 (new): The closure of Claim 35 wherein said closure further
2 comprises a second door, and said door mounting assembly includes a second
3 hinge assembly for pivotally mounting said second door on said frame, whereby
4 said second door is movable from a closed position to an open position.

1 Claim 37 (new): The closure of Claim 36 wherein each said first and second
2 door is substantially rectangular and defines outboard and inboard edges, and

3 upper and lower edges, and wherein said each said first and second jamb member
4 defines a front surface, said outboard edge of said first door being pivotally secured
5 to said first sill member with said first hinge assembly such that said first door
6 covers said front surface of said first jamb member when said first door is in said
7 closed position, and said outboard edge of said second door being pivotally secured
8 to said second sill member with said second hinge assembly such that said second
9 door covers said front surface of said second jamb member when said second door
10 is in said closed position.

1 Claim 38 (new): The closure of Claim 37 wherein said sill member of said
2 frame defines a first rabbet along an upper forward edge of said sill member for
3 receiving said lower edges of said first and second doors when said first and second
4 doors are in said closed position, and wherein said header member of said frame
5 defines a second rabbet along a lower forward edge of said header member for
6 receiving said upper edges of said first and second doors when said first and
7 second doors are in said closed position.

1 Claim 39 (new): The closure of Claim 38 wherein said first door defines a
2 third rabbet along the inside of said inboard edge of said first door, and wherein
3 said second door defines a fourth rabbet along the outside of said inboard edge of
4 said second door, whereby said inboard edges of said first and second doors
5 overlap when said first and second doors are in said closed position.

1 Claim 40 (new): The closure of Claim 39 wherein said first and second doors
2 and said frame are fabricated substantially of copper.